Claims:

1. A drilling method in which a drill bit is mounted on a tubular drill string extending through a bore, the method comprising:

drilling a bore extending through a formation containing fluid at a predetermined pressure;

circulating drilling fluid down through the drill string to exit the string at or adjacent the lower end thereof, and then pass upwards through an annulus between the string and bore wall; and

adding energy to the drilling fluid in the annulus at a location above said formation such that the pressure of the drilling fluid above said location is higher than the pressure of the drilling fluid below said location and there is a predetermined differential between the pressure of the formation fluid and the pressure of the drilling fluid in communication with the formation.

2. The method of claim 1, wherein the differential between the drilling fluid pressure and the formation fluid pressure is selected such that the drilling fluid pressure is high enough to prevent the formation fluid from flowing into the bore, but is not so high as to damage the formation.

3. The method of claim 1, wherein the pressure of the drilling fluid above said location is higher than the pressure of the drilling fluid in communication with the formation.

4. The method of claim 1, wherein the drilling fluid pressure at the formation is lower than the formation fluid pressure.

5. The method of any of claims claim 1, wherein the formation is a hydrocarbon-bearing formation.

6. The method of claim 1, wherein the pressure of the fluid in the formation is determined by prior survey.

7. The method of any of claims 1, wherein energy is added to the drilling fluid at said location by at least one pump arrangement.

8. The method of claim 7, wherein the pump is driven by the fluid flowing through the drillstring.

9. The method of claim 7, wherein the pump is electrically powered.

10. The method of claim 7, wherein the pump is driven by the rotation of the drill string.

11. The method of claim 1, wherein a proportion of the circulating drilling fluid flows directly from the drill string bore to the annulus above said location.

12. (Previously Presented) The method of claim 1, further comprising isolating sections at least one of the drill string bore and annulus when there is no fluid circulation, such that such sections may be maintained at relatively low pressures.

13. The method of claim 1, wherein the pressure of the circulating drilling fluid at the formation is lower than hydrostatic pressure.

14. The method of claim 1, further comprising agitating drill cuttings in the annulus.

15. The method of claim 14, wherein the drill cuttings are agitated by agitating members driven by the flow of drilling fluid through the string.

16. Drilling apparatus for accessing a sub-surface formation containing fluid at a predetermined pressure, the apparatus comprising:

a drill bit mounted on a tubular drill string for extending through a bore and drilling through a formation containing fluid at a predetermined pressure;

means for circulating drilling fluid down through the drill string to exit the string at or adjacent the bit and enter an annulus between the string and bore wall, and then continuously upwards through an the annulus between the string and bore wall; and

means for adding energy to the drilling fluid in the annulus above the formation such that the pressure of the drilling fluid above said means is higher than the pressure of the drilling fluid below said means and there is a predetermined differential between the pressure of the formation fluid and the pressure of the drilling fluid in communication with the formation.

17. The apparatus of claim 16, wherein said means for adding energy is at least one pump arrangement mounted on the drill string.

18. The apparatus of claim 17, wherein the pump is adapted to be driven by the fluid flowing through the drill string.

19. The apparatus of claim 18, wherein the pump comprises a turbine drive.

20. The apparatus of claim 17, wherein the pump is an electrically driven pump.